IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): Digital transmission method ~~of the type with error correcting coding,~~ comprising:[[,]]

~~before a step of transmission over a channel, a coding procedure for generating~~ coding, from a useful information item, a coded information item comprising <u>a useful information item and</u> at least one redundant information item,

<u>transmitting said coded information item over a channel after said coding,</u> ~~and,~~

<u>receiving said coded information item,</u>

~~after the said step of transmission over the said channel, a~~

decoding ~~procedure in order~~ to obtain, from <u>the</u> ~~a~~ received <u>coded</u> information item ~~to be decoded,~~ an estimation of said useful information item with correction of ~~the~~ transmission errors based on said at least one redundant information item,

said coding comprises ~~procedure comprising~~ a plurality of elementary coding steps <u>which operate in parallel or in series and are</u> associated with at least one interleaving step ~~and operating in parallel or in series,~~

said decoding ~~procedure being~~ <u>is</u> iterative and <u>comprises</u> ~~comprising,~~ for each iteration, a plurality of elementary decoding steps associated with interleaving and deinterleaving steps, corresponding to said plurality of elementary coding steps associated with said at least one interleaving step, each of said elementary decoding steps <u>receives</u> ~~(50) receiving~~ a set of information to be decoded and <u>generates</u> ~~generating~~ a set of weighted output information items ~~associated with a set of decoded information,~~

~~the said method being characterised in that it further comprises a step of determining~~ <u>generating</u> a characteristic quantity, ~~(51) adapted to calculate,~~ from each set of said <u>weighted output information items generated by each of said elementary decoding steps</u>

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during each iteration that is ~~for each of said elementary decoding steps (50), a quantity~~

characteristic of ~~the~~ said set of weighted output information items,

comparing ~~a comparison step (53) adapted to compare the~~ said characteristic quantity

with ~~a~~ said threshold quantity, and

~~an interrupt step (54) for~~

interrupting said decoding ~~procedure~~ when said characteristic quantity ~~quality~~ reaches

~~the~~ said threshold quantity.

Claim 2 (Currently Amended): Digital transmission method ~~of the error correcting~~

~~coding type~~ according to Claim 1, ~~characterised in that, each of said elementary decoding~~

~~steps (50) generating a set of extrinsic information items corresponding to the said set of~~

~~weighted output information items, the~~ wherein said generating step ~~characteristic quantity~~

comprises:

calculating a quantity characteristic of a set of extrinsic information. ~~determination~~

~~step (51) is adapted to calculate, for each of the said elementary decoding steps (50), a~~

~~quantity characteristic of the said set of extrinsic information items.~~

Claim 3 (Currently Amended): Digital transmission method ~~of the error correcting~~

~~coding type~~ according to ~~Claims~~ Claim 1 ~~or 2~~, ~~characterised in that the~~ wherein said

generating step ~~characteristic quantity~~ comprises:

~~calculated by the said characteristic quantity determination step (51) is~~

calculating a statistical quantity characterising ~~the~~ said set of weighted output

information items.

Claim 4 (Currently Amended): Digital transmission method ~~of the error correcting~~ ~~coding type~~ according to Claim 3, ~~characterised in that the~~ wherein said <u>generating step</u> ~~characteristic quantity~~ <u>comprises:</u>

~~calculated by the said characteristic quantity determination step (51) is the~~

<u>calculating a</u> mean of ~~the~~ <u>an</u> absolute value of ~~the~~ <u>said set of</u> weighted output information <u>items</u> ~~item~~ <u>generated by each of said elementary decoding steps within each</u> <u>iteration.</u> ~~calculated on the said set of weighted output information items.~~

Claim 5 (Currently Amended): Digital transmission method ~~of the error correcting~~ ~~coding type~~ according to Claim 3 ~~or 4~~, ~~characterised in that the~~ wherein said ~~interrupt step~~ ~~(54)~~ <u>interrupting step comprises:</u>

interrupting ~~interrupts the~~ said decoding ~~procedure~~ when ~~the~~ said characteristic quantity is greater than ~~the~~ said ~~adapted~~ threshold quantity.

Claim 6 (Currently Amended): Digital transmission method ~~of the error correcting~~ ~~coding type~~ according to <u>Claim 1, further comprising:</u> ~~any one of the preceding claims,~~ ~~characterised in that the said digital transmission method also comprises~~

~~a threshold quantity determination step (52) for~~

determining a threshold quantity as a function of at least one configuration parameter.

Claim 7 (Currently Amended): Digital transmission method ~~of the error correcting~~ ~~coding type~~ according to Claim 6, ~~characterised in that~~ <u>wherein said determining step</u> <u>comprises:</u>

<u>determining a threshold quantity as a function of at least one</u> configuration parameters including ~~are the~~ signal to noise ratio, ~~the~~ size of ~~the~~ <u>a</u> useful information block, ~~the~~

elementary decoding algorithm, ~~the type of~~ quantity used, ~~the~~ maximum number of iterations, and the ~~type of~~ transmission channel.

Claim 8 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to Claim 6 ~~or 7~~, ~~characterised in that the~~ wherein said determining step ~~threshold quantity determination step (52)~~ comprises:

~~uses an adaptive algorithm making it possible to calculate the~~ calculating using an adaptive algorithm said threshold quantity as a function of one or more configuration parameters.

Claim 9 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to Claim 6 ~~or 7~~, ~~characterised in that the~~ wherein said determining step ~~threshold quantity~~ comprises:

~~determination step (52) uses~~

~~a pre-established reference table making it possible to select the~~ selecting, using a pre-established reference table, said threshold quantity as a function of one or more configuration parameters .

Claim 10 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according ~~to any one of~~ Claim ~~Claims~~ 6 ~~to 9~~, ~~characterised in that the~~ wherein said determining step ~~threshold quantity~~ comprises:

~~determination step (52) determines~~

selecting a threshold quantity based at least in part on ~~so as to make a compromise between the~~ a performance permitted by ~~the~~ said decoding ~~procedure~~ and ~~the~~ a complexity of this decoding ~~procedure~~.

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Claim 11 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to <u>Claim</u> ~~any one of Claims~~ 6 ~~to 9, characterised in that the~~ <u>wherein</u> said <u>determining step</u> ~~threshold quantity~~ <u>comprises:</u>

~~determination step (52) determines~~

<u>determining</u> a threshold quantity as a function of a required mean transmission time.

Claim 12 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to <u>Claim</u> ~~to any one of Claims~~ 6 ~~to 9, characterised in that the~~ <u>wherein</u> said <u>determining step</u> ~~threshold quantity~~ <u>comprises:</u>

~~determination step (52) determines~~

<u>determining</u> a threshold quantity as a function of <u>a</u> ~~an acceptable~~ mean energy consumption.

Claim 13 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to <u>Claim</u> ~~any one of Claims~~ 6 ~~to 12, characterised in that,~~ <u>wherein</u> <u>determining step comprises:</u>

<u>predefining</u> a ~~tolerable~~ maximum number of iterations <u>and</u> ~~having been predefined, the said threshold quantity determination step (52) determines a threshold quantity by~~

combining ~~on the one hand~~ a first quantity ~~(63)~~ characteristic of a first set of weighted output information items generated by a last elementary decoder during a last iteration and associated with a first set of decoded information items corresponding to ~~the~~ <u>an</u> error-free decoding of a set of information items to be decoded, and ~~on the other hand~~ a second quantity ~~(62)~~ characteristic of a second set of weighted output information items generated by ~~the~~ <u>said</u> last decoder during ~~the~~ <u>said</u> last iteration and associated with a second

set of decoded information items corresponding to the decoding of ~~the~~ said set of information items to be decoded in ~~the~~ a case where errors remain.

Claim 14 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to Claim 13, ~~characterised in that the~~ wherein said combining step comprises:

calculating said first quantity and said second quantity ~~quantities (63, 62)~~ based on ~~are~~ statistical quantities characteristic ~~respectively~~ of ~~the~~ said first set of weighted output information items and of ~~the~~ said second set of weighted output information items, respectively.

Claim 15 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to Claim 13, ~~characterised in that the~~ wherein said combining step comprises:

calculating said first quantity and said second quantity ~~quantities (63, 62)~~ that are ~~the~~ a mean ~~means~~ of ~~the~~ an absolute value of ~~the weighted output information item calculated on, respectively, the~~ said first set of weighted output information items and ~~the~~ a mean of an absolute value of said second set of weighted output information items respectively.

Claim 16 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to Claim ~~any one of Claims~~ 13 ~~to 15~~, ~~characterised in that~~ wherein said combining step comprises: ~~the~~

calculating using an adaptive algorithm said first quantity and said second quantity ~~quantities (63, 62) are determined,~~ as a function of at least one configuration parameter~~, by means of an adaptive algorithm~~.

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Claim 17 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to <u>Claim</u> ~~any one of Claims~~ 13 ~~to 15~~, characterised in that the said first and second quantities ~~(63, 62) are determined,~~ as a function of at least one configuration parameter, ~~by means of an adaptive algorithm~~.

Claim 18 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to <u>Claim</u> ~~any one of Claims~~ 13 ~~to 15, characterised in that the~~ <u>wherein said combining step comprises:</u>

<u>determining using a pre-established reference table</u> said first <u>quantity</u> and <u>said</u> second <u>quantity</u> ~~quantities (63, 62) are determined,~~ as a function of at least one configuration parameter~~, by means of a pre-established reference table~~.

Claim 19 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to <u>Claim</u> ~~any one of Claims~~ 13 ~~to 17, characterised in that the~~ <u>wherein said determining step comprises:</u>

<u>summing</u> ~~said threshold quantity is the sum of the~~ said first quantity ~~(63)~~ multiplied by a coefficient α and ~~of the~~ said second quantity ~~(62)~~ multiplied by a coefficient (1-α), the coefficient α being chosen between 0 and 1.

Claim 20 (Currently Amended): Digital transmission method ~~of the error correcting coding type~~ according to Claim 19, ~~characterised in that the~~ <u>wherein said summing step comprises:</u>

choosing said coefficient α based at least in part on is chosen so as to effect a compromise between the performance permitted by the said decoding procedure and the complexity of this said decoding procedure.

Claim 21 (Currently Amended): Digital transmission method of the error correcting coding type according to Claim 19, characterised in that the wherein said summing step comprises:

choosing said coefficient α is chosen as a function of a required mean transmission time.

Claim 22 (Currently Amended): Digital transmission method of the error correcting coding type according to Claim 19, characterised in that the wherein said summing step comprises:

choosing said coefficient α is chosen as a function of a an acceptable mean energy consumption.

Claim 23 (Currently Amended): Digital transmission method of the error correcting coding type according to Claim any one of Claims 19 to 22, characterised in that the wherein said summing step comprises:

determining said coefficient α is determined by means of using an adaptive algorithm.

Claim 24 (Currently Amended): Digital transmission method of the error correcting coding type according to Claim any one of Claims 19 to 22, characterised in that the wherein said summing step comprises:

determining said coefficient α ~~is determined by means of~~ using a pre-established

reference table.

Claim 25 (Currently Amended): Digital transmission method ~~of the error correcting~~

~~coding type~~ according to Claim 1 ~~any one of the preceding claims, characterised in that the~~

wherein said decoding step comprises:

having inputs and outputs of said elementary decoding steps ~~(50) have inputs and~~

~~outputs~~ which are weighted, in terms of probabilities, likelihood ratios or log likelihood

ratios.

Claim 26 (Currently Amended): Digital transmission method ~~of the error correcting~~

~~coding type~~ according to Claim 1 ~~any one of the preceding claims, characterised in that the~~

wherein said coding step ~~procedure~~ comprises at least one puncturing step and ~~the~~ said

decoding step ~~procedure~~ comprises at least one corresponding depuncturing step.